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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,853	10/30/2003	Daniel Yellin	MP1483	9760
64768 7590 05/14/2007 MARSHALL, GERSTEIN & BORUN, LLP (MARVELL) 233 SOUTH WACKER DRIVE 6300 SEARS TOWER CHICAGO, IL 60606-6357			EXAMINER CORRIELUS, JEAN B	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 05/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/697,853

Applicant(s)

YELLIN, DANIEL

Examiner

Jean B. Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-28,30-33 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-28,30 and 35-40 is/are allowed.
- 6) ☒ Claim(s) 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The drawings were received on 3/27/07. These drawings are acceptable.

However, the drawing is still objected to as set forth below.

Drawings

2. The drawings are objected to because the specification page, for instance page 3, lines 4-5 describes fig. 2 as illustrating a joint equalization and MUD detection.

However, Fig. 2 does not show a structure of an equalizer. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31, lines 10 and 11, "said first group" and "said second group" lacks of proper antecedent basis. Such deficiencies can be corrected by rewriting claim 31 in dependent form to make it dependent on claim 30 and by deleted redundant limitations recited in lines 3-8, respectively.

Claim 32, lines 9 and 10, "said first group" and "said second group" lacks of proper antecedent basis. Such deficiencies can be corrected by rewriting claim 32 in dependent form to make it dependent on claim 30 and by deleted redundant limitations recited in lines 3-8, respectively

Allowable Subject Matter

5. The indicated allowability of claim 33 is withdrawn. Claim 33 includes similar limitations as previously rejected claim 12 or 38. The claim was inadvertently indicated allowable. Accordingly, rejection based on the previously applied reference(s) follow.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yellin et al US Patent application publication No. 2003/0095588A1 in view of Agami et al US patent No. 6,879,623.

Yellin et al discloses a method and apparatus (Fig.1) comprising a multiplier incorporated in a circuit 18 considered as the claimed despreader to despread data within a baseband CDMA signal, said data associated with a desired user see abstract; a despreading sequence generator to generate a signal considered as the claimed "joint equalization/multi-user detection despreading sequence" for use by said multiplier "despreader" to despread said data see fig. 1. However, Yellin does not teach that plurality antennas are used to receive the CDMA signal it also fails to teach the further limitation of sampling the baseband signal using chip rate sampler at a chip rate before said signal reaches said despreader. However configuring a receiver with a multiple antenna to receive the CDMA signal would have been in the purview of one of ordinary skill in the art. Therefore, it would have been obvious to modify Yellin by replacing the single antenna into a plurality of receive antennas in order to establish antenna diversity so as to improve signal reception. In addition, Agami et al teaches the further limitation of sampling the baseband signal using chip rate sampler 310 at a chip rate before said signal reaches said despreader 316-318. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Yellin so as to enhance signal detection.


Allowable Subject Matter

8. Claims 2-28, 30, 35-40 are allowed.
9. Claims 31 and 32 would be allowable if amended as suggested above by the examiner to overcome the 112 rejection as set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jean B. Corrielus
Primary Examiner
Art Unit 2611 5.10.07